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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/165,034	10/01/1998	RICHARD J. NEELY	KCX-85-(1319	7380
22827	7590	05/03/2004	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			PIERCE, JEREMY R	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/165,034

Applicant(s)

NEELY ET AL.

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-12,14-16,27-50 and 59-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-12,14-16,27-50 and 59-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on February 17, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7, 9, 10, 15, 16, 27-32, 34, 35, 38-44, 49, 50, and 62-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. (U.S. Patent No. 4,834,735) in view of Newkirk et al. (U.S. Patent No. 5,143,779).

Alemany et al. teach an absorbent article wherein the deposition region of its absorbent member comprises a storage zone and an acquisition zone having a lower average density and a lower average basis weight per unit area than the storage zone (Abstract). The ratio of the density between the storage zone and acquisition zone is about or greater than 2:1 (column 2, lines 52-60). The web comprises thermoplastic fibers because Alemany et al. disclose using polyester fibers (column 8, line 9). Alemany et al. teach calendering the web (column 18, lines 3-12), thus compressing it. However, Alemany et al. fail to teach the calendering process involves thermally bonding the fibers. Newkirk et al. disclose a nonwoven fabric that is both compressed

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and thermally bonded (column 4, lines 30-41). Newkirk et al. teach that such a nonwoven fabric has strength, softness, and compression resistance to make it suitable for use in absorbent products (column 3, lines 65-68). It would have been obvious to a person having ordinary skill in the art at the time of the invention to thermally bond the absorbent web of Alemany et al. in order to provide improved strength, softness, and compression, as taught by Newkirk et al. With regard to claims 9, 27 and 35, Alemany et al. disclose the basis weights to be between 0.02 and 0.186 g/cm² (column 13, line 66) for the storage zone and between 0.015 and 0.1 g/cm² for the acquisition zone (column 14, line 49), and 1 g/cm² is equal to about 295 oz/yd². Further regarding claim 35, Alemany et al. disclose additional layers (column 4, lines 25-27). With regard to claims 2, 27, 34, and 38, Alemany et al. do not teach the web to comprise a spunbonded web. Newkirk et al. disclose the nonwoven layer can be made from a spunbonded web (column 4, line 33). It would have been obvious to one skilled in the art to manufacture the absorbent web of Alemany et al. by spunbonding rather than airlaying in order to provide a stronger, continuous fabric material. With regard to claims 7 and 30, Newkirk et al. disclose using polypropylene for the spunbonded web (column 4, line 67). With regard to claims 10, 16, and 31, Newkirk et al. teach using crimped fibers offer increased loft in the nonwoven web and bicomponent fibers are easily crimpable (column 4, lines 57-62). With regard to claim 15, Alemany et al. make the web by airlaying (column 18, line 4). With regard to claim 32, the first area would comprise 25 to 75% of the web (Figure 3). With regard to claim 39, the topsheet can comprise a spunbonded web (column 5, line 12), which could be considered the third layer. With

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regard to claim 40, Alemany et al. disclose the backsheet can be polyethylene film (column 5, lines 26-27). With regard to claim 41, Alemany et al. disclose the topsheet can be non-woven (column 5, line 11). With regard to claims 42 and 44, Alemany et al. disclose the article can be a disposable diaper or personal care product (column 1, lines 52-53). With regard to claim 43, Alemany et al. do not disclose the articles useful as a wiper product. It would have been obvious to one skilled in the art to use the absorbent material disclosed by Alemany et al. as a wiper product, since it is well known within the art that absorbent articles useful in personal care products and diapers can also be employed as a wiper product. With regard to claim 49 and 50, the acquisition zones extend in both the machine and cross machine direction in the form of various shapes (column 17, lines 1-12). With regard to claims 62, 65, 66, 69, 70, 73, Newkirk et al. disclose through-air bonding followed by calendaring (column 6, lines 29-33). With regard to claims 63, 67, and 71, Newkirk et al. disclose that pattern bonding has an attractive balance of loft, softness, and strength (column 6, lines 8-18). With regard to claims 64, 68, and 72, through-air bonding after calendaring is an alteration of the processing steps that would not create a materially different product.

4. Claims 3-6, 11, 33, 37, 48, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. in view of Newkirk et al. as applied to claims 1, 27, and 35 above, and further in view of Karami (U.S. Patent No. 4,027,672).

Alemany et al. do not disclose the lower basis weight area and the higher basis weight area to form a repeating pattern of alternating columns. However, this pattern is already known in the art of absorbent webs. Karami teaches various patterns of

densified regions in a nonwoven absorbent pad, including alternating columns (Figure 8) and where the first area surrounds the second area (Figure 5). It would have been obvious to one skilled in the art to use the densified patterns disclosed by Karami in the absorbent pad of Alemany et al. in order to derive the absorbing and transporting properties in the patterned web taught by Karami. With regard to claim 6, it would have been obvious to one skilled in the art to include alternating rows of densified regions as well as alternating columns in order to further increase the variance in absorbing and transporting properties of the web. With regard to claim 11, Karami shows the densified and undensified portions to exist in a 1:1 ratio (Figure 8).

5. Claims 12, 14, 36, 45-47, 77, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alemany et al. in view of Newkirk et al. as applied to claims 1, 27, and 35 above, and further in view of Morman (U.S. Patent No. 5,611,879).

Neither Alemany nor Newkirk disclose using both pulp fibers and polymeric fibers in the absorbent web. Also, neither reference discloses using meltblown fabrics for the web. Morman discloses that spunbond, meltblown, and coform webs may all be used in absorbent articles (column 4, lines 9-28). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use meltblown or coform webs in the absorbent article of Alemany et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

Response to Arguments

6. Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive.

7. Applicant argues that Alemany teaches away from thermal bonding. However, Alemany does not explicitly teach to avoid thermal bonding. Alemany discloses that one embodiment of the invention may use a web made from the EP 122,042, which happens to be substantially unbonded. But a single embodiment of the entire invention does not equate to teaching away from thermal bonding. Alemany does not restrict the invention to unbonded structures, so there is no teaching away from thermally bonding.

8. Applicant argues that Newkirk is directed to coverstock or spacer fabrics in absorbent products and that Newkirk does not disclose an absorbent layer. However, Newkirk discloses the nonwoven fabric is suitable for use in absorbent products (column 3, line 6), especially as coverstock and spacer fabrics (column 4, line 6). Newkirk teaches that spacer fabrics provide liquid acquisition, distribution, and wicking functions (column 2, line 3). Similarly, Alemany teaches the absorbent web of his invention also provide advantageous acquisition, distribution, and wicking properties (column 2, lines 12-20). Thus, both webs of Alemany and Newkirk are designed to acquire and distribute fluid in an absorbent article. What they are called and how they are layered in their respective references is not as important as what they do. Distinguishing a spacer layer from an absorbent core layer is difficult because in the art of absorbent articles, spacer layers are often thought of as being a part of the core layer (see U.S. Patent No. 5,360,420 to Cook et al., column 4, lines 15-41).

9. Applicant argues that the layers of Cook et al. are entirely different than the spacer layer of Newkirk. The Cook et al. reference was not used in the rejection, but it is merely cited to show that spacer layers are often thought of as being part of the core material. The materials of Newkirk and Alemany both desire the same features, as set forth above, so the references are combinable.

10. Applicant argues that thermal bonding would adversely alter Alemany as it is suited for its intended purpose. The Examiner does not agree. Alemany teaches the absorbent web of his invention also provide advantageous acquisition, distribution, and wicking properties (column 2, lines 12-20). These properties would not be adversely affected because Newkirk teaches these properties to be present in the spacer fabric (column 2, line 3).

11. Applicant asserts that changing the unbonded structures of Alemany to make them bonded is a substantial redesign of Alemany because Alemany teaches away from such bonding. Again, the unbonded fabric used as a single example in Alemany does not create a teaching in Alemany that thermal bonding must be precluded. The motivation of supplying strength, softness, and compression resistance makes the combination of Newkirk with Alemany possible.

12. Applicant argues that Alemany does not teach a spunbonded web. The Examiner agrees, but the rejection of the claims using a spunbonded web was made by the combination of Newkirk with Alemany.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRP

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Elizabeth M. Cole
ELIZABETH M. COLE
PRIMARY EXAMINER